

REMARKS

Claims 1-4, 6, 8-16, and 18-24 stand rejected. Claims 5, 7, and 13-29 have been cancelled. Claims 1-4, 6, and 8-12 are now pending.

35 USC § 102 Rejection of the Claims

Claims 1-4, 6, and 8-12 stand rejected under 35 USC § 102(b), as being anticipated by Chan (US Publication No. 2002/0119455). Applicants respectfully traverse this rejection, because Chan fails to disclose a sequencing method wherein “sequentially separating each monomer from the polymer subsample” and detection of the separated monomer (“detecting the labels of each separated labeled monomer as a function of time”) occurs. The claims of the present application are directed to sequencing methods in which monomers of a polymer subsample are detached and detected. In contrast, Chan teaches that the polymer remains intact for the analysis. For example, Chan describes detecting the labels of a polymer, for example, Chan states, “[t]he point where the polymer passes the localized region of agent is the interaction station. As each labeled unit of the polymer passes by the agent a detectable signal is generated.” (Chan, page 19, paragraph [0206].) Chan further teaches away from the desirability of separating monomers (or “exonuclease sequencing”), with statements such as “[i]n practice, exonuclease sequencing has encountered many difficulties in each of the steps. The labeling step requires that all four bases in the DNA be tagged with different fluorophores. Sterically, this is extremely unfavorable... Furthermore, difficult optical trapping is needed to suspend DNA molecules in a flowing stream. The step is time intensive and requires considerable expertise. Lastly, single molecules of fluorophore need to be detected with high efficiency.” (Chan, page 2, paragraph [0016].) All the elements of the claim need to be described by the prior art invention for the prior art invention to anticipate the claims of the present invention. Since not all the elements of the claims can be found in the prior art invention of Chan, Chan does not anticipate the present invention.


CONCLUSION

Applicants respectfully request reconsideration and allowance of the pending claims in view of the remarks set forth above. If the Examiner has any questions, the Examiner is encouraged to contact the undersigned at 310-551-4992.

Respectfully submitted,

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